

CLAIMS

What is claimed is:

1. A dissolution test sample holder immersible within a liquid for measuring the dissolution or release rate of a test sample in said liquid, said holder comprising:

a tubular body having opposed ends, one of said ends being open;

an end cap removably attached to said one end, said end cap having a peripheral side wall coaxially interengaged with said body and a flange extending substantially perpendicularly inwardly of said side wall and forming a support surface within said end cap, said flange surrounding and defining an aperture through said end cap;

a porous membrane positioned within said end cap on said support surface and covering said aperture;

a ring sized to fit coaxially within said end cap contiguous with said membrane, said membrane being sandwiched between said support surface and said ring, said ring having a predetermined thickness and an inner perimeter defining a volume holding said test sample in contact with said membrane;

said one end of said body being immersible to bring said membrane into contact with said liquid, said test sample passing through said porous membrane upon immersion and dissolving in said liquid.

2. A dissolution test sample holder according to Claim 1, wherein said tubular body and said end cap are cylindrical in shape, said aperture is circular and has

a predetermined diameter, and said ring has circular inner and outer perimeters.

3. A dissolution test sample holder according to Claim 2, wherein said end cap is removably attached to said body by friction between said side wall and said body.

4. A dissolution test sample holder according to Claim 3, wherein said body forms a seal with said end cap side wall.

5. A dissolution test sample holder according to Claim 3, wherein said ring has an inner diameter substantially equal to said aperture diameter and said aperture diameter is smaller than an inner diameter of said body.

6. A dissolution test sample holder according to Claim 5, further comprising a sample cover formed by a disk having a diameter sized to slidably interfit coaxially within said body and seat on said ring, said disk covering said test sample held within said inner perimeter of said ring on said membrane.

7. A dissolution test sample holder according to Claim 5, wherein said body has another open end opposite said one end, said other open end being sized to accept a rotatable shaft in frictional interengagement, said shaft being coaxial with and rotating said body with said one end immersed within said liquid to promote dissolution of said test sample into said liquid.

8. A dissolution test sample holder according to Claim 5, wherein said tubular body has an end surface positioned at said one end engaging said ring, said end surface compressing said ring and clamping said membrane between said ring and said support surface.

9. A dissolution test sample holder immersible within a liquid for measuring the dissolution or release rate of a test sample in said liquid, said test sample being dispensed into said liquid through a porous membrane mounted within said holder, said holder comprising:

a tubular body having opposed ends, at least one of said ends being open;

an end cap removably attached to said one end, said end cap having a peripheral side wall coaxially interengaged with said body and a flange extending substantially perpendicularly inwardly of said side wall and forming a surface within said end cap for supporting said membrane, said flange surrounding and defining an aperture through said end cap, said membrane being positionable on said surface covering said aperture, said test sample being positionable within said end cap on said membrane;

said one end of said body being immersible to bring said membrane into contact with said liquid, said test sample passing through said porous membrane upon immersion and dissolving in said liquid.

10. A dissolution test sample holder according to Claim 9, further comprising a ring sized to fit coaxially within said end cap on top of said membrane, said ring having a predetermined thickness and an inner

perimeter defining a volume holding said test sample in contact with said membrane.

11. A dissolution test sample holder according to Claim 10, wherein said tubular body and said end cap are cylindrical in shape, said aperture is circular and has a predetermined diameter, and said ring has circular inner and outer perimeters.

12. A dissolution test sample holder according to Claim 11, wherein said one end of said body frictionally interfits within said end cap side wall and is contiguous with said ring, said ring preventing contact between said body and said membrane.

13. A dissolution test sample holder according to Claim 12, wherein said ring has an inner diameter substantially equal to said aperture diameter and said aperture diameter is smaller than an inner diameter of said body.

14. A dissolution test sample holder according to Claim 13, wherein the other of said ends is open and is sized to accept a rotatable shaft in frictional interengagement, said shaft being coaxial with and rotating said body with said one end immersed within said liquid to promote dissolution of said test sample into said liquid.

15. A method of dissolution testing a test sample in a liquid, said method comprising the steps of:

providing a tubular body having opposed ends, at least one of said ends being open;

providing an end cap removably attachable to said one end, said end cap having a peripheral side wall coaxially interengagable with said body and a flange extending substantially perpendicularly inwardly of said side wall and forming a support surface within said end cap, said flange surrounding and defining an aperture through said end cap;

providing a porous membrane positionable within said end cap on said support surface and covering said aperture;

positioning said membrane on said support surface covering said aperture;

loading said test sample onto said membrane;
attaching said end cap to said one end of said body;

immersing said one end of said body into said liquid thereby wetting said membrane; and

measuring the concentration of said test sample in said liquid periodically.

16. A method of dissolution testing according to Claim 15, further including the steps of:

providing a ring sized to fit coaxially within said end cap contiguous with said membrane, said ring having a predetermined thickness and inner perimeter defining a volume holding said test sample in contact with said membrane;

positioning said ring on said membrane coaxially within said end cap, said membrane being sandwiched between said support surface and said ring; and

wherein said loading step comprises loading said test sample onto said membrane within said inner perimeter of said ring.

17. A method of dissolution testing according to Claim 16, wherein the other end of said tubular body is open, said steps positioning said ring and attaching said end cap occur before said loading step, and said loading step comprises loading said test sample onto said membrane through said other open end.

18. A method of dissolution testing according to Claim 17, further including the steps of attaching said other end of said tubular body coaxially to a rotatable shaft, and rotating said body while said one end is immersed in said liquid to promote dissolution of said test sample.